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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/521,133

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Cornelis Johannes Denissen

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08/30/2006

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

HINES, ANNE M

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 08/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

57

Office Action Summary	Application No. 10/521,133	Applicant(s) DENISSEN ET AL.	
	Examiner Anne M. Hines	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-7,9 and 11-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-7,9 and 11-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

The amendment filed on August 14, 2006, has been entered and acknowledged by the Examiner.

Claims 1, 3, 5-7, 9, and 11-14 are pending in the instant application.

Finality

The finality of the office action dated June 29, 2006 is withdrawn because of additional prior art that has come to the attention of the Examiner.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 5, 7, 9, and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spaeth (US 2218345) in view of Krefft (GB 733853) (of record).

Regarding claims 1 and 7, Spaeth teaches a low-pressure gas-discharge lamp with a gas-tight discharge vessel that contains a gas filling (Fig. 12; Column 3, lines 16-27), with electrodes for maintaining a gas discharge in the discharge vessel and comprises a coil having a core made from a first refractory metallic material that has a first electronegativity (Fig. 1, 12; Column 1, lines 4-26), having a surrounding winding

Art Unit: 2879

made from a second refractory metallic material that has a second electronegativity (Fig. 1, 10; Column 1, lines 4-26), having current feeds, and with a means for igniting and maintaining gas discharge (Fig. 12, 44; Column 6, lines 53-57), characterized in that the first electronegativity is higher than the second electronegativity (The electronegativity of the tungsten is inherently higher than hafnium). Spaeth also teaches wherein the core is composed of three strands of wire that are twisted together (Column 4, line 73 to Column 5, line 3). Spaeth fails to teach wherein the electrode has a coating of an electron-emitting material arranged between the core and the winding.

In the same field of endeavor of electrodes with core and winding for gas-discharge lamps, Krefft teaches wherein the electrode has a coating of an electron-emitting material arranged between a core of twisted wires and the winding (Fig. 4; Column 2, lines 64-79) in order to improve starting of the discharge in the lamp and prevent blackening of the bulb (Column 1, line 39 to Column 2, line 53).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Spaeth to have the coating of an electron-emitting material arranged between the core and the winding, as disclosed by Krefft, in order to improve starting of the discharge in the lamp and prevent blackening of the bulb.

Regarding claims 3 and 9, Spaeth further discloses wherein the first refractory metal of the core is tungsten and the second refractory metal of the coil is hafnium (Column 1, lines 20-26).

Regarding claims 5 and 11, Spaeth teaches a low-pressure gas-discharge lamp with a gas-tight discharge vessel that contains a gas filling (Fig. 12; Column 3, lines 16-27), with electrodes for maintaining a gas discharge in the discharge vessel and comprises a coil having a core made from a first refractory metallic material that has a first electronegativity (Fig. 1, 12; Column 1, lines 4-26), having a surrounding winding made from a second refractory metallic material that has a second electronegativity (Fig. 1, 10; Column 1, lines 4-26), having current feeds, and with a means for igniting and maintaining gas discharge (Fig. 12, 44; Column 6, lines 53-57), characterized in that the first electronegativity being lower than the second electronegativity, and further characterized in that the first refractory metallic material is tungsten and the second refractory material is rhenium (Column 1, lines 20-26). Spaeth also teaches wherein the core is composed of three strands of wire that are twisted together (Column 4, line 73 to Column 5, line 3). Spaeth fails to teach wherein the electrode has a coating of an electron-emitting material arranged between the core and the winding.

In the same field of endeavor of electrodes with core and winding for gas-discharge lamps, Krefft teaches wherein the electrode has a coating of an electron-emitting material arranged between a core of twisted wires and the winding (Fig. 4; Column 2, lines 64-79) in order to improve starting of the discharge in the lamp and prevent blackening of the bulb (Column 1, line 39 to Column 2, line 53).

Therefore, it would have been obvious to one of ordinary skill in the art to modify the invention of Spaeth to have the coating of an electron-emitting material arranged

Art Unit: 2879

between the core and the winding, as disclosed by Krefft, in order to improve starting of the discharge in the lamp and prevent blackening of the bulb.

Claims 6 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spaeth (US 2218345) and Krefft (GB 733853) (of record) in view of Ruigrok (US 5742125) (of record).

Regarding claims 6 and 12-14, Spaeth and Krefft teach the invention of claims 1, 5, 7, and 11, but fail to teach wherein the coating of an electron-emitting material contains a polymeric multiple barium tungstate.

In the same field of endeavor of electron-emitting materials for discharge lamp electrodes, Ruigrok teaches an electron-emitting material contains a polymeric multiple barium tungstate (Column 4, lines 13-15) in order to reduce the work function of the electrodes (Column 1, lines 21-24). Ruigrok teaches the suitability of using barium tungstate for the emitting-material of the electrode.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the emitting material of the electrode be barium tungstate, as disclosed by Ruigrok, in order to reduce the work function of the electrodes and to choose from one of the materials disclosed by Ruigrok, since Ruigrok teaches the suitability of using an emitting material formed of barium tungstate and it has been held to be within the general skill of an artisan to select a known material on the basis of the intended use. See MPEP 2144.07.

Art Unit: 2879

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne M. Hines whose telephone number is (571) 272-2285. The examiner can normally be reached on Monday through Friday from 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anne M Hines
Patent Examiner
Art Unit 2879

AmH
8/25/06

MS
MARICEL SANTIAGO
PRIMARY EXAMINER